

What is Claimed is:

1. A method for determining the status of paths between a start node and an end node of a network, the network comprising at least one path between said start node and said end node, said at least one path comprising at least one connector, said method comprising:

- 5 receiving information corresponding to the start node and the end node;
- receiving information corresponding to a type of path of interest;
- receiving information corresponding to a type of connector of interest;
- determining a path between the start node and the end node based upon the type of path of interest and the type of connector of interest;
- 10 identifying at least one connector in said path;
- receiving data representative of an operating parameter from said at least one connector;
- comparing said data to a predetermined value; and
- 15 providing an indication if said data exceeds said predetermined value.

2. The method of claim 1, wherein receiving information corresponding to a type of path of interest comprises receiving information corresponding to at least one of: all paths between the start node and the end node, and a shortest path between the start node and the end node.

3. The method of claim 1, wherein said at least one path comprises at least one sub-network, wherein each of the sub-networks has at least one level 2 connector and at least one level 3 connector, each of the sub-networks being configured to intercommunicate with another of the sub-networks via a level 3 connector, and wherein receiving information corresponding to a type of connector of interest comprises receiving information corresponding to at least one of: level 2 and level 3 connectors, and level 3 connectors.

4. The method of claim 3, wherein, when the type of connectors of interest are level 3 connectors and wherein said determining a path between the start node and the end node comprises:

- 5 identifying sub-networks associated with the start node; and
- determining whether the end node is associated with at least one of the identified sub-networks.

5. The method of claim 3, wherein said at least one path comprises at least one segment and wherein when the type of connectors of interest are level 2 and level 3 connectors, determining a path between the start node and the end node comprises:

- 5 identifying segments associated with the start node; and
- determining whether the end node is associated with at least one of the identified segments.

6. The method of claim 4, further comprising:

recursively identifying sub-networks associated with the each of the previously identified sub-networks if the end node is not associated with at least one of the identified sub-networks; and

- 5 determining whether the end node is associated with at least one of the sub-networks associated with the each of the previously identified sub-networks.

7. The method of claim 5, further comprising:

recursively identifying segments associated with the each of the previously identified segments if the end node is not associated with at least one of the identified segments; and

- 5 determining whether the end node is associated with at least one of the segments associated with the each of the previously identified segments.

8. The method of claim 2, wherein determining a path between the start node and the end node comprises:

storing a shortest path between the start node and the end node in memory as a current shortest path; and

5 if the type of path of interest is the shortest path between the start node and the end node, recursively determining paths between the start node and the end node based upon the type of connector of interest such that, when a newly determined path between the start node and the end node is shorter than the current shortest path, the current shortest path is replaced with the  
10 newly determined path.

9. The method of claim 1, wherein said operating parameter is relative to the quantity of data passing through said at least one connector.

10. The method of claim 1, wherein said at least one connector has a data storage device associated therewith and wherein said operating parameter is relative to the available space on said data storage device.

11. The method of claim 1, wherein said at least one connector monitors itself and records errors detected by said monitoring, and wherein said operating parameter is related to the errors recorded by said at least one connector.

12. The method of claim 1, wherein said at least one connector has a management information base associated therewith and wherein said operating parameter is data stored in said management information base.

13. A system for determining paths between a start node and an end node of a network, said network comprising at least one path between said start node and said end node, said path comprising at least one connector and at least one segments, said system comprising:

5 a processor;

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10        a discovery mechanism associated with said processor, said discovery mechanism configured to generate and store topology data specifying connectors and segments of a network, said discovery mechanism being configured to determine a path between a start node and an end node based upon said topology data; and

15        a connector evaluation mechanism associated with said processor, said connector evaluation mechanism configured to:

receive a parameter value from a connector in said path;

compare said parameter value to a preselected value; and

generate an event if said parameter value exceeds said preselected value.

14.      The system of claim 13, wherein said discovery mechanism has a probable path mechanism configured to determine a path between the start node and the end node based upon said topology data.

15.      The system of claim 13, wherein said discovery mechanism has means for determining a path between the start node and the end node based upon said topology data.

16.      The system of claim 14, wherein said probable path mechanism is configured to receive information corresponding to a type of path of interest, receive information corresponding to a type of connector of interest, and determine a path between the start node and the end node based upon said type of path of interest and said type of connector of interest.

5        17.      The method of claim 13, wherein said parameter value is relative to the quantity of data passing through said at least one connector.

18.      The method of claim 13, wherein said at least one connector has a data storage device associated therewith and wherein said parameter value is relative to the available space on said data storage device.

19. The method of claim 13, wherein said at least one connector monitors itself and records errors detected by said monitoring, and wherein said parameter value is related to the errors recorded by said at least one connector.

20. The method of claim 13, wherein said at least one connector has a management information base associated therewith and wherein said parameter value is data stored in said management information base.

21. A computer readable medium having a computer program for determining paths between a start node and an end node of a network, the network comprising at least one path, said at least one path comprising at least one connector, said computer readable medium comprising:

- 5 logic configured to receive information corresponding to the start node and the end node;
- logic configured to receive information corresponding to a type of path of interest;
- logic configured to receive information corresponding to a type of connector of interest;
- 10 logic configured to determine a path between the start node and the end node based upon the type of path of interest and the type of connector of interest;
- logic configured to receive a parameter value from a connector in said path;
- 15 logic configured to compare said parameter value to a preselected value; and
- logic configured to generate an event if said parameter value exceeds said preselected value.

22. The computer readable medium of claim 21, wherein the logic configured to receive information corresponding to a type of path of interest comprises logic configured to receive information corresponding to at least

one of: all paths between the start node and the end node, and a shortest path between the start node and the end node.

23. The computer readable medium of claim 21, wherein said network comprises at least one sub-network, wherein each of the sub-networks has at least one level 2 connector and at least one level 3 connector, each of the sub-networks being configured to intercommunicate with another of the sub-networks via a level 3 connector, and wherein the logic configured to receive information corresponding to a type of connector of interest comprises logic configured to receive information corresponding to at least one of: level 2 and level 3 connectors, and level 3 connectors.

24. The computer readable medium of claim 23, wherein the logic configured to determine a path between the start node and the end node comprises:

logic configured to identify sub-networks associated with the start node;  
and  
logic configured to determine whether the end node is associated with at least one of the identified sub-networks.

25. The computer readable medium of claim 23, wherein the logic configured to determine a path between the start node and the end node comprises:

logic configured to identify segments associated with the start node;  
and  
logic configured to determine whether the end node is associated with at least one of the identified segments.

26. The method of claim 21, wherein said parameter value is relative to the quantity of data passing through said at least one connector.

27. The method of claim 21, wherein said at least one connector has a data storage device associated therewith and wherein said parameter value is relative to the available space on said data storage device.

28. The method of claim 21, wherein said at least one connector monitors itself and records errors detected by said monitoring, and wherein said parameter value is related to the errors recorded by said at least one connector.

29. The method of claim 21, wherein said at least one connector has a management information base associated therewith and wherein said parameter value is data stored in said management information base.